

WHAT IS CLAIMED IS:

1. A refrigerator comprising:

a cabinet;

a first refrigerated compartment within the cabinet having a door;

a second refrigerated compartment within the cabinet;

a dividing wall separating the first refrigerated compartment from the second refrigerated compartment;

a duct connecting the first refrigerated compartment for airflow communication with the second refrigerated compartment;

a damper movable between an open position and a closed position for controlling airflow within the duct;

a refrigeration apparatus having a refrigeration cycle being measured from a first starting of the refrigeration apparatus to a second consecutive starting of the refrigeration apparatus, and an off cycle being a time within said refrigeration cycle during which the refrigeration apparatus is not operating;

a controller for controlling the damper; and

a door sensor connected to the controller for detecting when the door is open;

wherein if the controller determines that the door has remained closed for a set number of refrigeration cycles, the controller maintains the damper in the closed position during a subsequent consecutive off cycle.

2. The refrigerator of claim 1, wherein the refrigeration apparatus is a compressor.

3. The refrigerator of claim 1, wherein the set number of refrigeration cycles is three.
4. The refrigerator of claim 1, wherein the set number of refrigeration cycles is one.
5. An apparatus for controlling airflow between compartments in a two compartment refrigerator having a door, the apparatus comprising:
  - a damper for opening and closing a duct between the two compartments of the refrigerator;
  - a controller for controlling the opening and closing of the damper; and
  - a door sensor connected to the controller for detecting when the door is open;wherein if the controller determines that the door has remained closed for a set period, the controller closes and/or maintains the damper in the closed position.
6. The apparatus of claim 5, wherein the two compartments comprise a frozen food compartment and a fresh food compartment, the door being associated with the fresh food compartment.
7. The apparatus of claim 5, wherein the door sensor is a switch.
8. The apparatus of claim 5, wherein the set period is a set number of on/off cycles of a compressor of the refrigerator.
9. The apparatus of claim 8, wherein the set number of on/off cycles is three.

10. A self defrosting refrigerator comprising:
- a cabinet;
  - a first refrigerated compartment within the cabinet having a first door;
  - a second refrigerated compartment within the cabinet having a second door;
  - a dividing wall separating the first refrigerated compartment from the second refrigerated compartment;
  - a duct connecting the first refrigerated compartment for airflow communication with the second refrigerated compartment;
  - a damper movable between an open position and a closed position for controlling airflow within the duct;
  - a refrigeration apparatus within the cabinet; and
  - a controller for controlling the damper;
- wherein the controller carries out a damper cleaning operation in which the controller at least partially opens and then at least partially closes the damper a set number of times at a set interval.
11. The refrigerator of claim 10 wherein the controller carries out the damper cleaning operation prior to energizing an evaporator fan.
12. The refrigerator of claim 10, further comprising a defrosting apparatus, wherein the controller carries out the damper cleaning operation subsequent to an operation of the defrosting apparatus.

13. The refrigerator of claim 10, further comprising a defrosting apparatus, wherein the controller carries out the damper cleaning operation between an operation of the defrosting apparatus and a subsequent consecutive energizing of the evaporator fan.
14. The refrigerator of claim 10, wherein during the cleaning operation the damper is moved from a fully open position to a fully closed position.
15. A damper cleaning apparatus for a two compartment refrigerator having a damper for controlling airflow between compartments, the damper cleaning apparatus comprising:
- a damper drive mechanism for opening and closing the damper; and
  - a controller for controlling the damper drive mechanism wherein the controller carries out a cleaning operation by at least partially opening and then partially closing the damper a set number of times at a set interval.
16. The damper cleaning apparatus of claim 15, wherein the controller carries out the damper cleaning operation prior to an operation of the an evaporator fan of the refrigerator.
17. The damper cleaning apparatus of claim 15, wherein the controller carries out the damper cleaning operation subsequent to a defrost operation of the refrigerator.
18. A method for cleaning a damper in a refrigerator comprising steps of:
- at least partially opening the damper;

following the step of opening, waiting for a set period and then at least partially closing the damper; and

repeating the steps of at least partially opening and waiting a set number of times.

19. The method of claim 18, further comprising a step of initiating a defrosting operation of the refrigerator prior to the step of opening.

20. The method of claim 18, further comprising a step of commencing a cooling operation of the refrigeration apparatus following the step of repeating.